DEPARTMENT of ENVIRONMENTAL SERVICES Water Supply & Pollution Control Division - Biology Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake: NORWAY PONI)	Lake Area (ha):	20.03
Town: HANG	COCK	Maximum depth (m):	5.5
County: Hill	lsborough	Mean depth (m):	2.5
River Basin: Mer		Volume (m³):	509000
Latitude: 42°!		Relative depth:	1.1
Longitude: 71°!		Shore configuration:	1.20
Elevation (ft):	825	Areal water load (m/yr)	: 48.87
Shore length (m)	1900	Flushing rate (yr^{-1}) :	19.20
Watershed area (1	na): 1839.9	P retention coeff.:	0.36
% watershed ponde	ed: 2.1	Lake type:	natural

BIOLOGICAL:	18 January 1996	27 June 1995
DOM. PHYTOPLANKTON (% TOTAL) #1	ASTERIONELLA 70%	DINOBRYON 30%
#2	COELOSPHAERIUM 10%	SYNURA 25%
#3		CERATIUM 15%
PHYTOPLANKTON ABUNDANCE (units/mL)		
CHLOROPHYLL-A (µg/L)		
DOM. ZOOPLANKTON (% TOTAL) #1	KERATELLA 69%	VORTICELLA 36%
#2	KELLICOTTIA 9%	KELLICOTTIA 19%
#3	CALANOID COPEPOD 9%	NAUPLIUS LARVA 10%
ROTIFERS/LITER	75	76
MICROCRUSTACEA/LITER	17	90
ZOOPLANKTON ABUNDANCE (#/L)	94	273
VASCULAR PLANT ABUNDANCE		Common
SECCHI DISK TRANSPARENCY (m)		3.8
BOTTOM DISSOLVED OXYGEN (mg/L)	6.6	0.8
BACTERIA (E. coli, #/100 ml) #1		4
#2		< 1
#3		

SUMMER THERMAL STRATIFICATION:

stratified

Depth of thermocline (m): 2.7 Hypolimnion volume (m³): None Anoxic volume (m³): 2100

CHEMICAL:			NORWAY PO	OND	
	18 Janua	ary 1996	27 3	June 1995	
DEPTH (m)	2.0	4.0	1.0	3.5	5.0
pH (units)	6.0	5.7	6.7	6.4	6.0
A.N.C. (Alkalinity)	4.3	3.8	3.5	2.5	4.4
NITRATE NITROGEN	< 0.10	< 0.10	< 0.10		0.09
TOTAL KJELDAHL NITROGEN	0.30	0.24	0.32	0.32	0.32
TOTAL PHOSPHORUS	0.005	0.006	0.010	0.014	0.013
CONDUCTIVITY (µmhos/cm)	40.6	42.6	44.6	44.1	46.6
APPARENT COLOR (cpu)	44	48	30	40	45
MAGNESIUM			0.48		
CALCIUM			2.3		
SODIUM			5.2		
POTASSIUM			0.46		
CHLORIDE	4	5	6		10
SULFATE	5	5	4		4
TN : TP	60	40	32		32
CALCITE SATURATION INDEX			3.7		

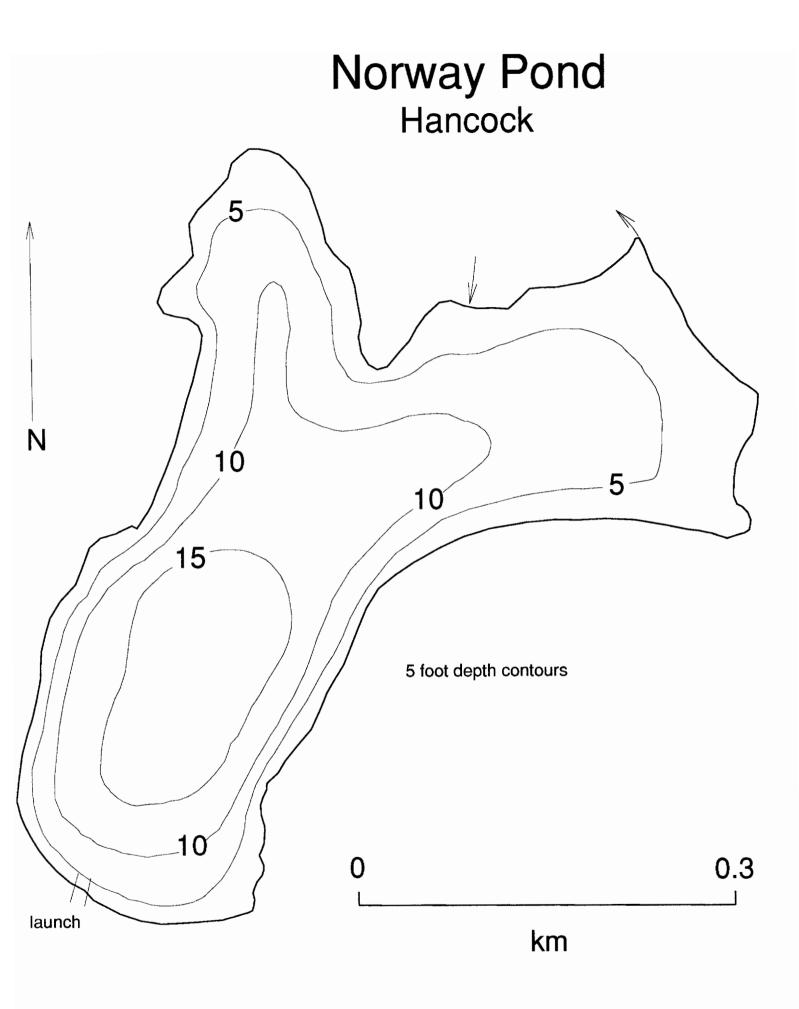
All results in mg/L unless indicated otherwise

TROPHIC CLASSIFICATION: 1995

D.O.	S.D.	PLANT	CHL	TOTAL	CLASS
**	2	3	**	5	Meso.

COMMENTS:

- 1. This pond was previously surveyed and classified in 1980. There was no change in the assigned classification and little change in water quality between the two years, although the macrophyte growth did appear a little more abundant in 1995.
- 2. The pond joined DES' Volunteer Lake Assessment Program in 1994. It is too early to evaluate trends.
- 3. Moose Brook, which drains from Willard Pond in Antrim, is the main tributary to the pond. It enters a wetland near the outlet of the pond--some tributary water may enter the pond and some may go directly to the outlet. The watershed area and flushing rate values presented on the preceding page assumes Moose Brook is part of the Norway Pond watershed. If we do not include Moose Brook in the watershed, the watershed of Norway Pond becomes 44.3 ha and the flushing rate is only 0.4 times/year. Very slow water circulation probably occurs at the town beach located at the southern end of the pond (it appears from the topography that the natural outlet of Norway Pond may have been at the southern end but was dammed up by the construction of Route 123).
- 4. There is a 10 mph speed limit for boats on Norway Pond.



FIELD DATA SHEET

LAKE: NORWAY POND

DATE: 06/27/95

TOWN: HANCOCK

WEATHER: CLEAR, WINDY & WARM

DEPTH (M)	TEMP (°C)	*DISSOLVED OXYGEN	OXYGEN SATURATION
0.1	24.2	8.1	96 %
1.0	24.2	8.2	97 %
2.0	24.0	8.2	97 %
3.0	20.5	8.6	93 %
4.0	17.0	6.0	62 %
5.0	14.0	0.8	8 %
	-		

SECCHI DISK (m): 3.8

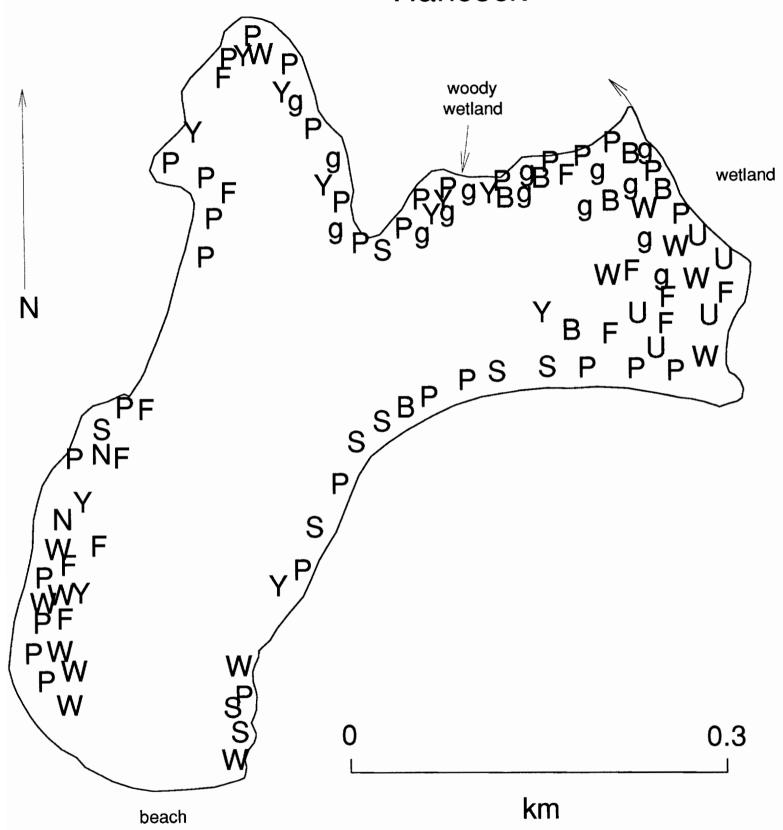
COMMENTS:

BOTTOM DEPTH (m): 5.4

TIME: 1200

*Dissolved oxygen values are in mg/L

Norway Pond Hancock



AQUATIC PLANT SURVEY

LAK	E: NORWAY POND	TOWN: HANCOCK	DATE: 06/27/95	
Key	PLANT	NAME	ABUNDANCE	
меу	GENERIC	COMMON		
P	Pontederia cordata	Pickerelweed	Common	
F	Nymphoides cordatum	Floating heart	Scattered	
S	Sparganium	Bur reed	Scattered	
Y	Nuphar	Yellow water lily	Scattered	
g		Bottom growth	Scattered	
W	Potamogeton	Pondweed	Sparse	
N	Nymphaea	White water lily	Sparse	
В	Brasenia schreberi	Water shield	Scattered	
U	Utricularia	Bladderwort	Scattered	
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GENERAL OBSERVATIONS:

- 1. A treed wetland (swamp) was present at the north end of the pond.
- 2. A good boat launch was located at the south end of the pond adjacent to the town beach; parking was available.
- Much of the pond is undeveloped; observed a great blue heron, many turtles, and fish
 jumping.

OVERALL ABUNDANCE: Common